Chapter 2

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

This chapter describes the alternatives considered for implementing the proposed action and a summary of the environmental consequences associated with each alternative.

2.1 THE PROPOSED ACTION

The proposed action is to formulate a new and comprehensive reservoir Land Management and Disposition Plan (Plan) for 6,453 acres of plannable land associated with the Tims Ford Project. The remaining land will be managed according to its existing uses (e.g., parks, dam reservation, lands below the 888 foot contour, etc.). The Plan is intended to provide a clear statement of how project land would be disposed of or managed in the future based on scientific, cultural, and economic principles and consistent with the language of Public Chapter 816 and with the original congressional intent of the project. This Plan will address sensitive resources and issues and concerns raised by the public and major stakeholders during the scoping period. In the Plan, TVA and TDEC will also seek to integrate management of land and water resources to provide increased public benefits and to balance competing and sometimes conflicting resource uses.

2.1.1 PLANNING PROCESS

The TVA Land Planning Process was used to develop this Plan, guided by Public Chapter 816 and the original congressional intent of the Tims Ford Project. The land was divided into parcels based upon existing use and physical characteristics. Each parcel of land was reviewed to determine its physical capability and suitability for supporting certain uses while considering public needs. This process involved allocating each parcel of land into one of eight land-use zones. As a result of public comment on the draft EIS, Zone 8 (Conservation Partnership) was added to the previous list of zones into which the land is being allocated. These zones are listed below. A more detailed description is included in Appendix C, Land-Use Zone Definitions.

1. Non-TVA Shoreland
2. TVA Project Operations
3. Sensitive Resource Management
4. Natural Resource Conservation
5. Industrial/Commercial Development
6. Recreation
7. Residential Development/Access
8. Conservation Partnership

Acreage identified between the 895-foot and 888-foot contour elevations (1,397 acres) is identified on the Land-Use Allocation Map (Volume II, Exhibit 1) to reflect TVA fee-owned land. These 1,397 acres would be managed as shoreline buffer, considering the land-use allocation of the backlying property. These acres are not included in the lands currently planned, but are used in determining shoreline miles and acres of TVA land on Tims Ford Reservoir. This land will remain in TVA ownership and will be managed using practices consistent with the allocation of the backlying tracts. Those areas fronting residential subdivisions where there are water access rights will be managed according to TVA's Shoreline Management Policy (SMP) and the policies established in this EIS for Conservation Partnership (TVA, 1998a).

Section 26a of the TVA Act requires that TVA approval be obtained prior to construction, operation, or maintenance of any dam, appurtenant works, or other obstruction affecting navigation, flood control, public lands, or reservations along or in the Tennessee River and its tributaries. TVA will consider Section 26a

applications for residential shoreline alterations and other land-use approvals only on lands allocated for residential development. These areas and future parcels identified for development by the Plan are presently designated by deeded or implied rights of ingress and egress for residential development/access. Under the Blended Alternative of the SMI Final EIS, TVA will categorize these residential shoreline areas into one of three categories. The categories are based on the present and potential impacts to sensitive ecological resources such as threatened or endangered species, wetlands, and archaeological and historic sites. These categories are:

1. **Shoreline Protection** for shoreline segments that support sensitive ecological resources, such as federally-listed threatened or endangered species, high priority state-listed species, wetlands with high function and value, archaeological or historical sites of national significance, and certain navigation restrictions zones. Within this category, all significant resources will be protected.
2. **Residential Mitigation** for shoreline segments where resource conditions or certain navigation restrictions would require special analysis of individual development proposals, additional data, or specific mitigation measures.
3. **Managed Residential** for shoreline segments where no sensitive resources are known to exist. Routine environmental review would be completed for any proposed action.

Docks and other residential shoreline development would not be permitted on lands within the Shoreline Protection Category because of the significant and sensitive nature of the resources contained in this area or because of navigation restrictions. By contrast, Section 26a applications for docks and other residential shoreline development in the Residential Mitigation Area would be reviewed by TVA for compliance with the SMP, (TVA, 1998a) and the Section 26a regulations; however, restrictions on development or mitigation measures may be necessary in this shoreline category. Section 26a applications for docks and other shoreline development in the Managed Residential Area would also be reviewed for compliance with the SMP and Section 26a regulations.

As new data are collected on the spatial location and significance of endangered species, wetlands, and cultural resources, TVA expects that adjustments to category boundaries may be necessary. Over time, some Shoreline Protection areas or Residential Mitigation Areas could be moved into Managed Residential Areas if new resource information warrants such a change. Similarly, some Managed Residential areas could be moved into the Shoreline Protection or Residential Mitigation category if new information supports such a change. Property owners should check with the TVA Wheeler Watershed Team office for the current status of an area.

The existing residential shoreline on Tims Ford Reservoir comprises 52.4 miles (19 percent) of the total 275 miles of shoreline. There are 1,493 acres and 35.3 miles of shoreline of TERDA-developed subdivisions. Additionally, there are 122 acres and 17.1 miles of shoreline of project lands impacted by private residential development. This land has private water-use facilities and it is being maintained to some degree by the backlying property owners. A resource inventory for threatened and endangered species, wetlands, and cultural resources was conducted and the results were used to categorize the residential shoreline as shown in Table 2.2-1. Depending on the sensitivity of the resource, the shoreline reaches were placed in either the Residential Protection or Shoreline Mitigation categories. The survey resulted placing approximately 11.9 percent of the total shoreline in the Managed Residential category, approximately 7.2 percent in the Residential Mitigation category, and none in the Shoreline Protection category.

Table 2.1-1 Existing Residential Shoreline Categorization

Category	Miles	Percent of Total Shoreline
Shoreline Protection	0	0
Residential Mitigation	19.9	7.2
Managed Residential	32.8	11.9

A basic premise of the reservoir land planning process is that land currently committed to a specific use would be allocated to that current use unless there is an overriding need to change that use. Commitments include: transfers, leases, licenses, contracts, areas with sensitive resources, outstanding land rights, or TDEC-developed recreation areas. Agricultural licenses, because they are temporary, are not considered a committed use. For planning purposes, a total of 1,794 acres of project land is considered committed. Existing committed project lands and the corresponding land-use zones are listed in Table 2.1-2.

Table 2.1-2 Committed Project Lands

Committed Lands	Acres	Land-Use Zone
Tims Ford State Park	1,680	6 - Recreation
Winchester City Park	55	6 - Recreation
Devils Step Camp	39	6 - Recreation
Estill Springs City Park	20	6 - Recreation
Total	**1,794**	

Of the original project lands, 1,493 acres were sold for subdivisions and 26 acres were sold for a privately-owned commercial marina. These lands are not TVA or TDEC managed and are not being planned. Lands that are being included in the plan include TVA projects, TERDA-developed public-use areas, and a marina on TDEC property. These parcels are listed in Table 2.1-3. Distribution of current land use by acres and shoreline are shown in Figure 2.1-1.

Table 2.1-3 Existing Uses of Plannable Lands

Parcel	Description	Acres	Land-Use Zone
1	Tims Ford Dam Reservation	386.4	2 - Project Operations
3	Anderton Branch Public-Use Area	110.4	6 - Recreation
Various*	Non TERDA-developed subdivisions with water-use facilities	122.0	7 - Residential Access
27	Turkey Creek Public-Use Area	61.0	6 - Recreation
30	Holiday Marina and Resort	32.4	6 - Recreation
35	Pleasant Grove Public-Use Area	1.7	6 - Recreation
55	Rock Creek Public-Use Area	7.7	6 - Recreation
73A	Riva Lake Camp	2.3	6 - Recreation
79	Dry Creek Public-Use Area	27.5	6 - Recreation
	Total	**751.4**	

*Parcels 5, 7, 9, 17, 21, 25, 29, 38, 48, 49, 54, 56, 58, 60, 68, 74, 82, 84, 84A, 84B, 87, 89.

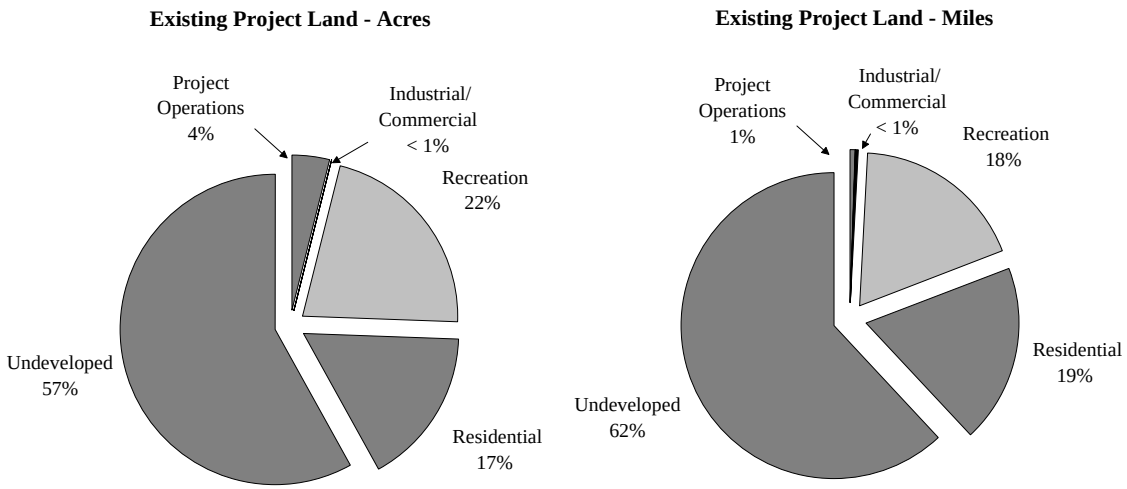

Figure 2.1-1 Distribution of Current Land Use

2.1.2 ORIGINAL TIMS FORD DEVELOPMENT CONCEPT

As part of the planning process, the original concept of the Tims Ford Project was reviewed. TVA's interest in tributary area development can be traced back to a report to Congress. In this report, the TVA Board of Directors discussed the unified development of the Tennessee River system and recognized the water problems of the major tributaries, which included the Elk River, as future development (Wells, 1964).

The early 1960s marked a new era in prosperity and planning for the future. TVA's commitment to total regional growth was enhanced largely by the shift toward smaller, more localized development within the tributary watersheds draining into the Tennessee River. By working closely with community leaders and volunteers in these tributary areas, TVA was able to stimulate economic development tailored to meet local needs. Technical studies helped communities become aware of local resources and how to use them more effectively (Wells, 1964).

The construction of the Tims Ford Reservoir was one piece of the overall watershed development initiative for the Elk River watershed. It provided a tool for economic development in addition to providing flood control, water supply, and power for the area. In working toward fulfilling its agreement with TVA for maintenance, operation, management and development of the shoreline properties, TERDA's objectives were to develop public facilities to encourage maximum use and provide opportunities for private investors along with sites for second homes and cabins. When Tims Ford Reservoir was completed, a development concept was created by TVA in cooperation with TERDA to comply with the original contract. Early development maps from the late 1960s and early 1970s indicate land was considered for project operations, natural resource conservation, industrial/commercial, recreation, and residential use. For the purposes of comparison and analysis, current land-use allocation zones assigned for the original concept of project lands are summarized in Table 2.1-4.

Table 2.1-4 Allocation of Project Lands Under Original Concept

Allocation	Acres*
Zone 1 - Non-TVA Shoreland	0
Zone 2 - Project Operations	386
Zone 3 - Sensitive Resource Management	0
Zone 4 - Natural Resource Conservation	800
Zone 5 - Industrial/Commercial	30
Zone 6 - Recreation	5,050
Zone 7 - Residential Access	3,500
Other	
TVA Lands Between Contours 888 and 895 (shoreline buffer)	1,397
Lands Below the 888 Contour (summer pool stage)	10,680

* Approximate area in acres

In the original concept, approximately 386 acres were dedicated to the Tims Ford Dam Reservation (i.e., project operations), and approximately 800 acres remained for natural resource conservation. Industrial and commercial development (i.e., municipal/industrial water intakes, treatment facilities, etc.) involved approximately 30 acres.

Most development on Tims Ford was envisioned to have an overall rustic appearance. Residential development areas were called homesites; these were conceived as weekend cabins. Early subdivision planning assumed cabin-type developments featuring small square-footage for each unit.

Today, the largest portion of public recreation areas are state park lands, city parks, launching ramps, and day use areas. By contrast, under the original development concept, recreation land uses were divided into 4 categories:

1. Group camps—mostly informal areas for campers with no bathroom facilities
2. Club sites—"industrial" recreation sites or retreat areas much like the Jack Daniels facility
3. Public recreation—launching ramps, picnic areas, day use areas, etc.
4. Large recreation complex study areas

2.2 ALTERNATIVES

Five alternatives were developed for evaluation in this EIS. The first alternative is a No Action Alternative as required by the NEPA regulations of the Council on Environmental Quality (CEQ). Three action alternatives were presented in the draft EIS for public review and comment. These were formulated and evaluated in order to develop the draft Tims Ford Land Management and Disposition Plan. Alternative B was modified in response to public comments received on the draft EIS. This modified alternative is presented as Alternative B1. The alternatives are described in the following subsections with brief summaries for each alternative in italics.

The inherent ability of land to support development is based upon the actual cost of development (e.g., construction and infrastructure costs) and the potential for environmental impacts caused by development. Development costs vary depending on the slope of the terrain, availability of utilities, accessibility, and other factors. Many environmental impacts can be mitigated effectively, provided adequate financial resources are available.

Project land on Tims Ford Reservoir varies from site to site depending upon slope, accessibility, availability of utilities, and other factors. Because of this variability, certain lands are more suitable for development. This suitability for development, determined by a model incorporating these and other criteria, was used to identify suitable and capable parcels. During the development and evaluation of the alternatives, each parcel of land was reviewed to determine its physical capability for supporting development. The same criteria were used to identify capable and suitable lands under each of the alternatives. Field data were collected on all suitable and capable parcels by technical specialists such as archaeologists, wetland and visual specialists, and biologists to identify areas containing sensitive resources. The criteria used in this evaluation are shown in Appendix D.

After the environmental impacts of the original four alternatives had been evaluated, TVA and TDEC initially preferred Alternative B because it provided a balance between conservational and developmental needs. During the comment period of the draft EIS, TVA and TDEC held two public meetings and invited comments to obtain feedback about the alternatives and other issues examined in the draft EIS. The comments received and the agencies' responses are in Appendix B of the final EIS.

Throughout the draft EIS comment period, it became evident that there were a number of opportunities to improve on the alternatives under consideration and more closely reflect the concerns expressed by the public. Even though both agencies initially preferred Alternative B, public reaction to the level of development proposed and requests for lake access on narrow strips of shoreline properties caused the agencies to reconsider the proposed recommendation. Therefore Alternative B1 incorporates a new resource conservation incentive program which allows limited lake access for adjacent landowners. This alternative is presented subsection 2.2.3.

Additionally, the following proposed actions would be taken under all alternatives:

1. All existing private water-use facilities with TERDA and/or TVA permits would be grandfathered. In cases where water-use facilities were previously approved in zones other than 7, Residential Development/Access, they will be allowed to be maintained at their approved size. However, requests to expand these facilities or to construct additional facilities will not be considered.
2. New residential development in parcels allocated for Zone 7 (Residential Development) would be buffered by a 50-foot shoreline management zone retained by TVA. New subdivisions would not be allowed to have private water-use facilities; however, community water-use facilities would be allowed in designated areas.
3. Existing subdivisions within parcels allocated for Residential Development/Access (Zone 7) would be allowed to apply for Section 26a approvals to construct new private water-use facilities.
4. Existing permitted docks located in parcels that are not zoned for Residential Access would be allowed to remain (Parcels 3, 8, 13, 16, 18, 20, 34, 40, and 52). Requests for additional water-use facilities will not be considered on these parcels.
5. TVA will prepare natural resources management "unit" plans for TVA-owned lands allocated to Zone 3 (Sensitive Resource Protection) and Zone 4 (Natural Resource Conservation).
6. Future uses of parcels that would be included in the Tims Ford State Park will be delineated through the TDEC's Strategic Management Plan for Tims Ford State Park.

2.2.1 ALTERNATIVE A—THE NO ACTION ALTERNATIVE

Summary: The No Action alternative involves either one or both agencies deciding not to adopt a jointly-prepared land management and disposition plan. In the absence of a plan, TVA and TDEC would proceed with disposition and/or management of properties on a case-by-case basis, using the scope of the Tims Ford Project as originally set forth, guided by Public Chapter 816, and subject to existing laws and policies.

Under the No Action alternative, TVA and TDEC would not adopt a jointly prepared plan. In the absence of a plan, TVA and TDEC would proceed with disposition and/or management of properties on a case-by-case basis. TDEC would manage the allocation of former TERDA properties, guided by Public Chapter 816 and existing state law and policy. TVA would continue management of its properties pursuant to TVA policies, including the recently adopted SMI. In accordance with its recent Shoreline Management Record

of Decision, TVA would independently complete a shoreline inventory along residential access lands to identify sensitive resources that would be protected in the residential permitting program. Depending on the sensitivity of the resource, each residential shoreline reach would be placed into one of the following three categories: managed residential, shoreline mitigation, or shoreline protection.

Because no joint plan would exist, the plannable project lands could be considered for a variety of uses. More than likely, the shoreline property with existing residential use and no land rights for residential access would be considered for residential access, affecting 122 acres and 17.1 miles of shoreline. The 881 acres identified for sensitive resource protection would more than likely be maintained in a protective category by TVA and TDEC to comply with federal, state, and local laws. Approximately 1,958 acres would likely be managed for Natural Resource Conservation because it was deemed not suitable or capable for development. Six acres are in existing light commercial use and 279 acres have existing recreational uses. The balance of lands, 2,821 acres, could be considered for development through land-use requests or disposition of properties for residential development, recreation (commercial or parks), and/or industrial or commercial uses. Development could range from all 2,821 acres being developed to no more development (0 acres). Requests for or proposed disposition of project lands would then be either approved or denied, based on a review of potential environmental effects and other considerations. Existing short-term (interim) land uses would remain in place until expiration or termination. Because no lands would be exchanged between TVA and TDEC, agency land ownership would remain unchanged.

Although land decisions would be made on a case-by-case basis, for the purpose of analysis, parcels under Alternative A are categorized into a likely land use consistent with current management trends. The project land uses for Alternative A are summarized in Table 2.2-1.

Table 2.2-1 Summary of Parcel Land-Use Allocations under Alternative A

Number of Parcels	Parcel Numbers	Proposed Land Allocations	Acres	Shoreline Miles
0	0	Zone 1 - Non TVA Shoreland	0	0
1	1	Zone 2 - Project Operations	386	1.6
9	15, 41, 43, 53, 63, 65, 67, 70, 72	Zone 3 - Sensitive Resource Management	881	31.0
35*	2, 4, 6, (8), 13, 16, 18, 20, 22, (26), 28, (33), (34), (37), (39), (40), 45, 47, 50, 52, 57, 59, 62, 64, 66, 69, 71, 73, (75), 77, 79A, (81), 85, 86, 88	Zone 4 - Natural Resource Conservation	1,958	82.6
2	7A, 83	Zone 5 - Industrial/Commercial	6	0.6
10	3, 10, 11, 23, 27, 30, 35, 55,73A, 79	Zone 6 - Recreation	279	7.7
21	5, 9, 17, 21, 25, 29, 38, 48, 49, 54, 56, 58, 60, 68, 74, 82, 84, 84A, 84B, 87, 89	Zone 7 - Residential	122	17.1
28	7, (8), 12, 14, 19, 24, (26), 31, 32, (33), (34), 36, (37), (39), (40), 42, 44, 46, 49, 51, 61, (75), 76, 78, 79A, 79B, 80, (81)	Potential for Development	2,821	55.1
		Total	**6,453**	**195.7**

* The number in parentheses includes only portions of the parcel.

Distribution of land use, shown by acres and shoreline length, should Alternative A be implemented are shown in Figure 2.2-1. This includes existing development and therefore represents cumulative totals.

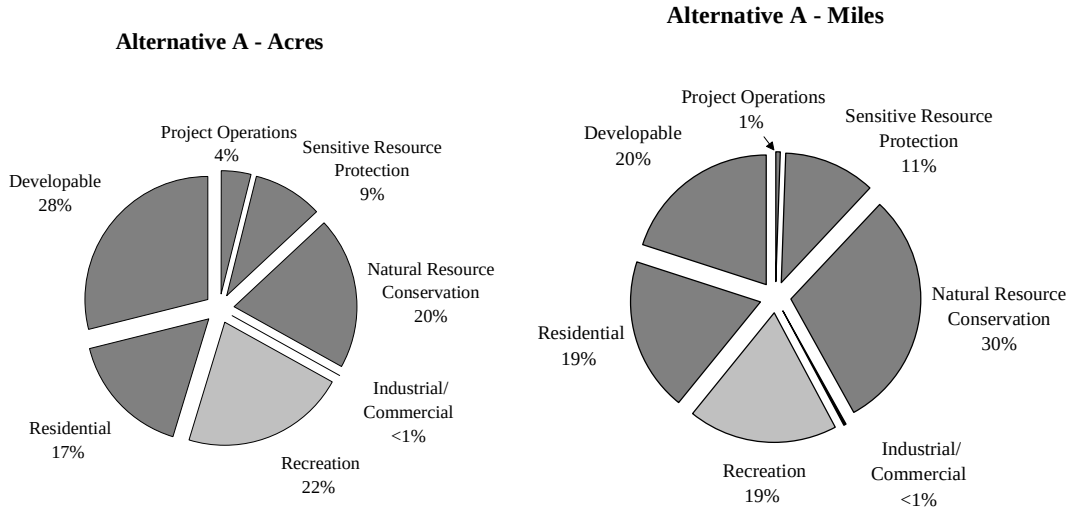

Figure 2.2-1 Distribution of Land Use Under Alternative A

2.2.2 ALTERNATIVE B—BALANCED LAND DEVELOPMENT AND CONSERVATION

Summary: Alternative B consists of a combination of development and conservation. It was developed based on regulatory requirements, public input, and the goals and interests of both TVA and TDEC.

Under Alternative B, the land surrounding the Tims Ford Reservoir would be allocated for both development and conservation. These allocations would be made in an attempt to reflect public input (see Appendix B), regulatory requirements, and the programmatic interests of both TVA and TDEC. Alternative B was developed using information obtained from the public, existing and newly-collected field data both on land conditions and resources, and technical knowledge from TVA and TDEC staff.

To define the most suitable and compatible uses for the land, a land planning team comprised of experts from TVA and TDEC staff was asked to examine the plannable lands. They were asked to rate and rank each parcel by a set of criteria (see Appendix E) depending on their discipline. Resource needs were identified during the scoping process to help determine the most suitable use for the land (see questionnaire results in Appendix B). After the ranking process, the planning team and technical specialists allocated the uncommitted parcels to one of the seven land-use zones listed in Table 2.2-2. Using resource maps and all of the information collected during the planning process (including public input), the capability and suitability of each parcel was discussed. Allocation decisions were made based on these discussions.

Table 2.2-2 Summary of Parcel Land-Use Allocations under Alternative B

Number of Parcels	Parcel Numbers	Proposed Land Allocations	Acres	Shoreline Miles
0	N/A	Zone 1 - Non TVA Shoreland	0	0
1	1	Zone 2 - Project Operations	386	1.6
9	15, 41, 43, 53, 63, 65, 67, 70, 72	Zone 3 - Sensitive Resource Management	881	31.0
39	2, 4, 6, 8, 12, 13, 16, 18, 20, 22, 24, 26, 28, 33, 34, 37, 39, 40, 42, 44, 45, 47, 50, 52, 57, 59, 62, 64, 66, 69, 71, 73, 75, 77, 79A, 81, 85, 86, 88	Zone 4 - Natural Resource Conservation	3,605	117.3
4	7A, 78, 79B, 83	Zone 5 - Industrial/Commercial	67	1.8
15	3, 10, 11, 19, 23, 27, 30, 32, 35, 55, 61, 73A, 76, 79, 80	Zone 6 - Recreation	576	13.8
27	5, 7, 9, 14, 17, 21, 25, 29, 31, 36, 38, 46, 48, 49, 51, 54, 56, 58, 60, 68, 74, 82, 84, 84A, 84B, 87, 89	Zone 7 - Residential	938	30.2
		Total	**6,453**	**195.7**

Projected distribution of land use shown by acres and shoreline length under Alternative B is shown in Figure 2.2-2. This includes existing development and therefore represents cumulative totals.

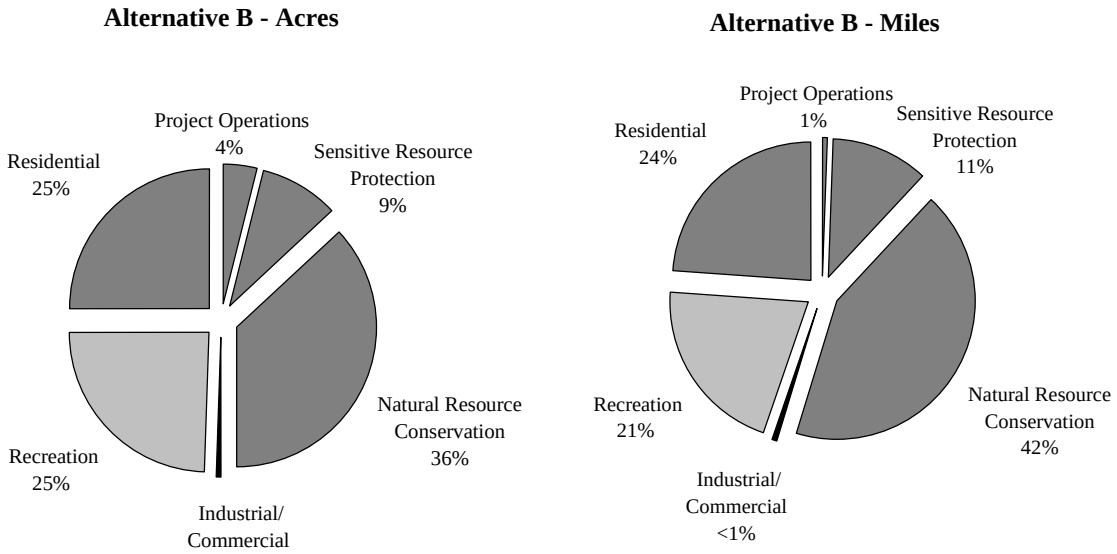

Figure 2.2-2 Distribution of Land Use Under Alternative B

2.2.3 ALTERNATIVE B1—BALANCED LAND DEVELOPMENT WITH CONSERVATION PARTNERSHIP

Summary: Alternative B1 consists of a combination of development and conservation. This alternative was developed by modifying Alternative B in response to public comment on the draft EIS. It includes an incentive program that seeks to widen the riparian zone that could be dedicated for environmental protection especially in those sections of the shoreline where currently only a narrow strip is in public ownership. Additionally, one parcel was reallocated and several minor corrections were made in boundaries of existing parcels. Like Alternative B, Alternative B1 is based on regulatory requirements and the goals and interests of both TVA and TDEC.

Alternative B1, Balanced Land Development with Conservation Partnership, is a modification of Alternative B which resulted from comments received on the Draft EIS and Plan. The primary change consists of including a new zone, Zone 8 (Conservation Partnership). Alternative B1 modifies the management strategy on certain lands (33 acres) allocated to Zone 4 in the Draft EIS. These Zone 8 areas were defined using the criteria specified in Appendix E. Specifically, within these 33 acres previously allocated to Zone 4, there are numerous locations where the public land above the 895-foot contour is very narrow and as such, does not provide a sufficient conservation buffer to protect water quality, conserve shoreline habitat, protect shorelines from long-term erosion, or retain shoreline aesthetics. It has also been TVA's experience that due to the close proximity of private property to the lake, these narrow public land areas present unique management problems, both from a property administration and resource conservation perspective. In addition, many of those who commented stated that because of the close proximity of their property to the water's edge, they had an expectation of gaining water access under the previous management policies of TERDA. Accordingly, the agencies identified these specific areas and allocated them to a new Zone 8 (Conservation Partnership); see Appendix C for the definition of Zone 8. The primary objective within this zone is to establish a wider shoreline buffer zone by fostering conservation partnerships with the adjacent private property owners. In return for conservation partnership easements granted by adjacent private property owners, TVA would consider requests for limited community water-use facilities. Applications for community water-use facilities in Zone 8 areas would be evaluated consistent with the criteria specified in Appendix E.

Additionally, several changes have been made. The allocation for the parcel previously designated as Parcel 14 was changed from Zone 7 (Residential Development/Access), to Zone 4 (Natural Resource Conservation). This change was made due to comments received from the public and several agencies and organizations. The agencies agree with supporting input that this change would reduce the density of residential development on the lower portion of the lake, enhance the viewshed of Tims Ford State Park, provide benefits for Natural Resource Conservation, and provide more natural areas on the reservoir. Portions of the parcel previously designated as Parcel 59 have been reallocated to Residential Development/Access due to existing water-use facilities and an existing subdivision. The eastern portion of previously designated Parcel 80 has been included in previously designated parcel 86. This area had been designated to Zone 6 in the past, but it was determined not to be compatible with adjacent land use of private dwellings; Zone 4 (Natural Resource Conservation), is a more compatible use. Also, the boundaries of Taylor Creek West subdivision were corrected on Exhibit 1. The parcels allocated to each of the eight zones for Alternative B1 are summarized in Table 2.2-3. Parcels fronting existing residential development were also allocated for Residential Access.

Table 2.2-3 Summary of Parcel Land-Use Allocations Under Alternative B1

Number of Parcels	Parcel Numbers	Proposed Land Allocations	Acres	Shoreline Miles
0	N/A	Zone 1 - Non TVA Shoreland	0	0
1	1	Zone 2 - Project Operations	386	1.6
9	15, 41, 43, 53, 63, 65, 67, 70, 72	Zone 3 - Sensitive Resource Management	881	31.0
41	2, 4, 6, 8, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 33, 34, 37, 39, 40, 42, 44, 45, 47, 49A, 50, 52, 57, 59, 62, 64, 66, 69, 71, 73, 75, 77, 79A, 81, 85, 86, 88	Zone 4 - Natural Resource Conservation	3,692	110.4
4	7A, 78, 79B, 83	Zone 5 - Industrial/Commercial	67	1.8
15	3, 10, 11, 19, 23, 27, 30, 32, 35, 55, 61, 73A, 76, 79, 80	Zone 6 - Recreation	573	13.7
27	7, 31, 36, 46, 51, 5, 9, 17, 21, 25, 29, 38, 48, 49, 54, 56, 58, 59A, 60, 68, 74, 82, 84, 84A, 84B, 87, 89	Zone 7 - Residential	821	28.2
51	6-1, 8-1, 8-2, 18-1, 18-2, 20-1, 20-2, 20-3, 22-1, 22-2, 22-3, 22-4, 22-5, 26-1, 28-1, 28-2, 33-1, 34-1, 34-2, 39-1, 39-2, 40-1, 40-2, 40-3, 40-4, 40-5, 50-1, 50-2, 52-1, 52-2, 52-3, 52-4, 57-1, 57-2, 66-1, 69-1, 71-1, 71-2, 71-3, 71-4, 71-5, 73-1, 73-2, 77-1, 77-2, 77-3, 81-1, 86-1, 86-2, 88-1, 88-2	Zone 8 - Conservation Partnership	33	9.0
		Total	**6,453**	**195.7**

Project distribution of land use by acres and shoreline length under Alternative B1 is shown in Figure 2.2-3. This includes existing development and therefore represents cumulative totals.

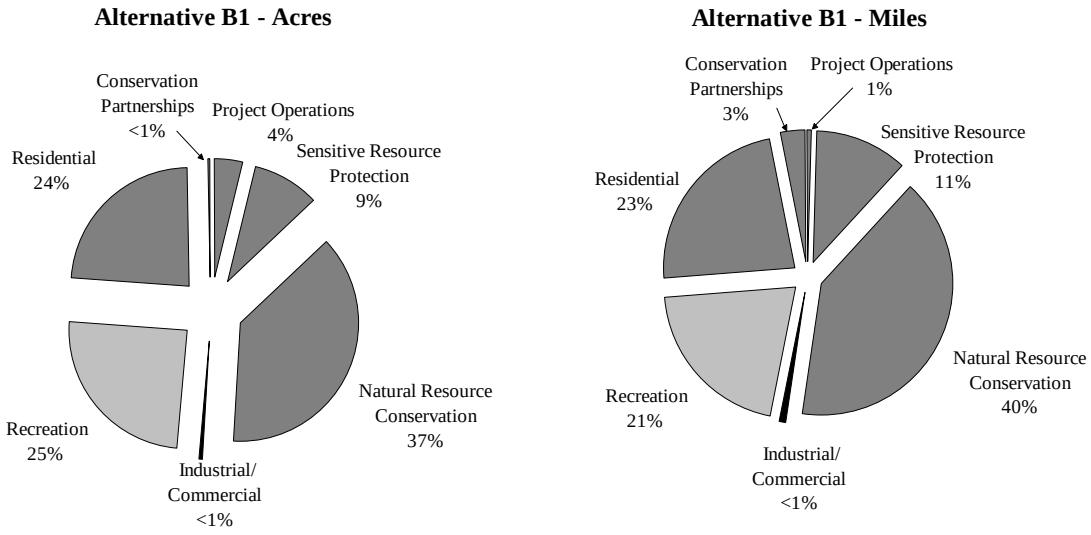

Figure 2.2-3 Distribution of Land Use Under Alternative B1

2.2.4 ALTERNATIVE C—MAXIMUM LAND DEVELOPMENT

Summary: Alternative C involves maximum residential and industrial/commercial development of all suitable lands while complying with federal, state, and local regulations. It was developed based on input received during the public comment period and existing and newly collected field data on land conditions and resources.

Alternative C, Maximum Land Development, involves the disposition of all uncommitted suitable and capable parcels for development (residential, commercial/industrial, and recreation). This allocation of parcels under this alternative would generate the most tax base and money for individual county economic development programs and state environmental and recreation programs. The public scoping report (Appendix B) summarizes comments on preferences for land allocation in Table 7 of the report. This alternative reflects substantial political interests and the interests of the 17 percent of the respondents that indicated a desire to develop more land. All plannable parcels would be allocated for development except those that do not meet suitability and capability criteria (see Appendix D), contain sensitive resources, such as threatened and endangered species or archeological sites (to comply with state and federal laws and regulations), or are less than 20 acres.

These parcels (i.e., those not allocated for development) would be allocated for sensitive resource protection, natural resource conservation, and any other uses deemed compatible. Under Alternative C, areas identified as having sensitive resources would be allocated to Zone 3 (Sensitive Resource Management). Additionally, no parcels suitable or capable for development would be set aside for natural resource conservation (Zone 4) in addition to those currently in that category under the original concept.

The parcels allocated to each of the seven zones under Alternative C are summarized in Table 2.2-4. Parcels fronting existing residential development were also allocated for Residential Development.

Projected distribution of land use shown by acres and miles of shoreline under Alternative C is shown in Figure 2.2-4. This includes existing development and therefore represents cumulative totals.

Table 2.2-4 Summary of Parcel Land-Use Allocations Under Alternative C

Number of Parcels	Parcel Numbers	Proposed Land Allocations	Acres	Shoreline Miles
0	N/A	Zone 1 - Non TVA Shoreland	0	0
1	1	Zone 2 - Project Operations	386	1.6
9	15, 41, 43, 53, 63, 65, 67, 70, 72	Zone 3 - Sensitive Resource Management	881	31.0
29	2, 4, 6, (8), 13, 16, 18, (20), 22, (28), (33), (34), (37), (40), 49, 52, 57, 59, 62, 64, 66, 69, 71, 73, (75), 77, 79A, 85, 86, 88	Zone 4 - Natural Resource Conservation	1,958	82.6
4	7A, 78, 79B, 83	Zone 5 - Industrial/Commercial	67	1.8
15	3, 10, 11, 19, 23, 27, 30, 32, 35, 55, 61, 73A, 76, 79, 80	Zone 6 - Recreation	576	13.8
45	5, 7, (8), 9, 12 14, 17, (20), 21, 24, 25, 26, (28), 29, 31, (33), (34), 36, (37), 38, 39, (40), 42, 44, 45, 46, 47, 48, 50, 51, 54, 56, 58, 60, 68, 74, (75), 81, 82, 84, 84A, 84B, 87, 89	Zone 7 - Residential	2,585	64.9
		Total	**6,453**	**195.7**

* The number in parentheses includes only portions of the parcel.

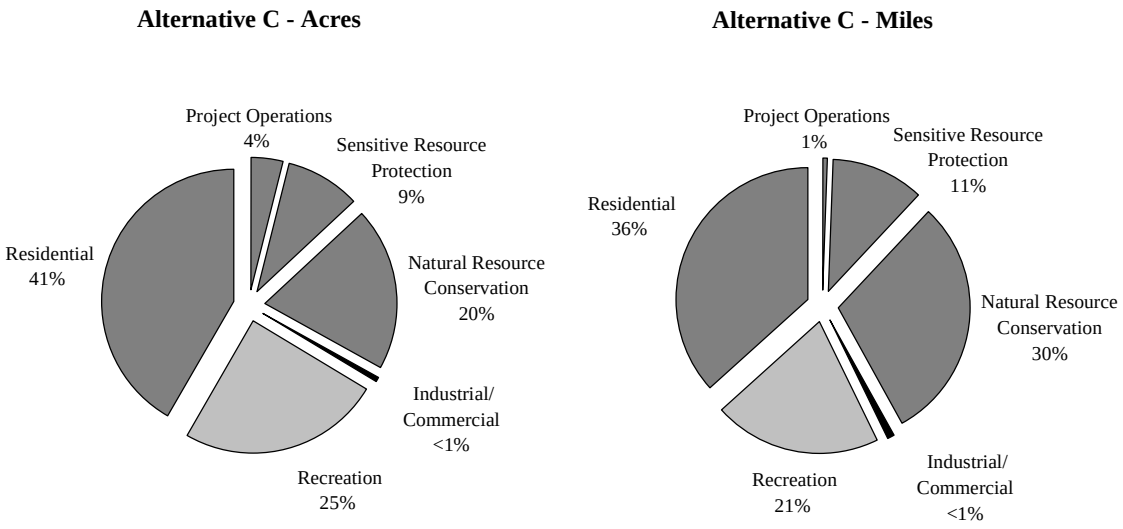

Figure 2.2-4 Distribution of Land Use Under Alternative C

2.2.5 ALTERNATIVE D—MAXIMUM LAND CONSERVATION

Summary: This alternative is a non-development approach that allows no new land development outside of existing uses. Under this alternative, all uncommitted lands would be considered unavailable for development and would be allocated for natural resource conservation.

This alternative constitutes a non-developmental approach. It would allow no new development outside of existing areas. All lands would be considered unsuitable for development and would be allocated for natural resource conservation. This alternative primarily reflects the input from existing lake-front residents favoring no additional shoreline development and comments from one federal and one state agency strongly recommending the consideration of no additional development on the Tims Ford Reservoir. The public scoping report (Appendix B) summarized comments on preferences for land allocation in Table 7 of the report.

Under this alternative, areas identified as having sensitive resources would be allocated to Zone 3 (Sensitive Resource Management). All parcels allocated for new development (industrial/commercial, residential, and/or recreation) under Alternatives B and C would be allocated for natural resource protection, Zone 4. Parcel allocations under Alternative D are shown in Table 2.2-5.

Table 2.2-5 Summary of Parcel Land-Use Allocations Under Alternative D

Number of Parcels	Parcel Numbers	Proposed Land Allocations	Acres	Shoreline Miles
0	N/A	Zone 1 - Non TVA Shoreland	0	0
1	1	Zone 2 - Project Operations	386	1.6
9	15, 41, 43, 53, 63, 65, 67, 70, 72	Zone 3 - Sensitive Resource Management	881	31.0
52	2, 4, 6, 7, 8, 12, 13, 14, 16, 18, 19, 20, 22, 24, 26, 28, 31, 32, 33, 34, 36, 37, 39, 40, 42, 44, 45, 46, 47, 50, 51, 52, 57, 59, 61, 62, 64, 66, 69, 71, 73, 75, 76, 77, 78, 79A, 79B, 80, 81, 85, 86, 88	Zone 4 - Natural Resource Conservation	4,779	137.7
2	7A, 83	Zone 5 - Industrial/Commercial Development	6	0.6
10	3, 10, 11, 23, 27, 30, 35, 55, 73A, 79	Zone 6 - Recreation	279	7.7
21	5, 9, 17, 21, 25, 29, 38, 48, 49, 54, 56, 58, 60, 68, 74, 82, 84, 84A, 84B, 87, 89	Zone 7 - Residential	122	17.1
		Total	**6,453**	**195.7**

Projected distribution of land use shown by acres and shoreline length under Alternative D is shown in Figure 2.2-5. This includes existing development and therefore represents cumulative totals.

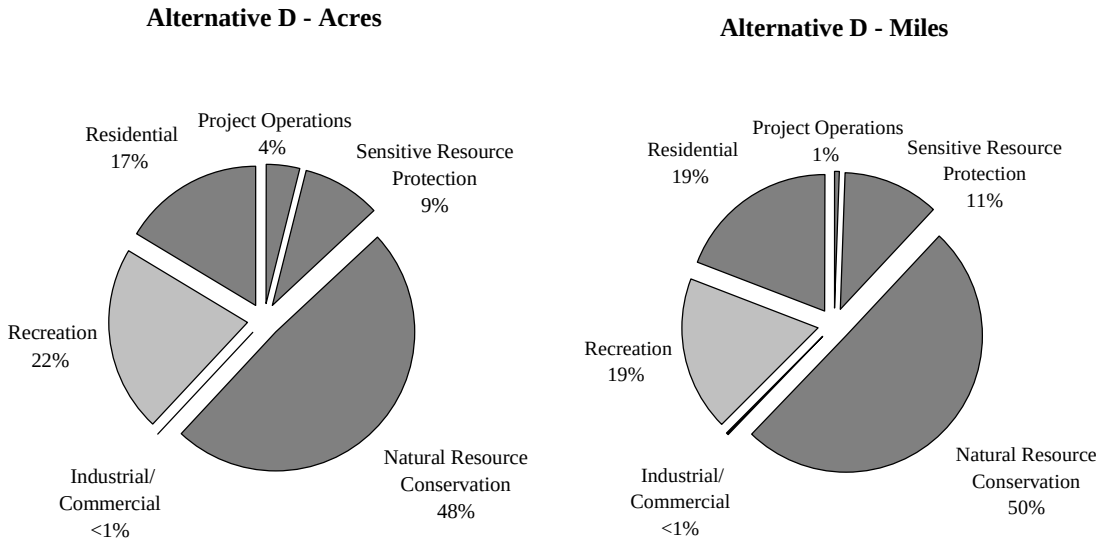

Figure 2.2-5 Distribution of Land Use Under Alternative D

2.2.6 ALTERNATIVES NOT CONSIDERED IN DETAIL

Two other alternatives were initially considered for the evaluation and/or assessment for this EIS: the continuation of the former TERDA management policies and the reduction of existing development. However, they were not considered to be viable.

Continuation of TERDA Management Policies
One alternative that was no longer considered in detail was the implementation of the 1991 TERDA Long Range Plan. The 1991 Long Range Plan was developed by the TERDA Board of Directors and had three primary purposes:

1. To establish a direction for TERDA through the year 2000.
2. To provide a set of principles to guide the day-to-day decisions affecting developments on the reservoir and area development within the watershed.
3. To inform the general public about what the agency was doing and why.

This plan was not developed with public input or with an environmental review, but deferred environmental reviews to a case-by-case basis when proposals involved TVA actions. The 1991 TERDA Long Range Plan classified land in five classes: developed, developable, marginally developable, undevelopable, and special opportunities. Land uses were limited to residential, recreational, agricultural, and open space. Although these limitations made the alternative unsuitable for the purpose of allocating Tims Ford Project Land, the 1991 Plan and the Lands Classification Map were used as a starting point to develop Alternatives B, C, and D. Further, the 1991 TERDA Plan could not be used in its entirety because it was not comprehensive, it had a duration of only 10 years, and it did not take into account sensitive resources. Developable properties identified by the 1991 Plan were included in data collection for the environmental review for this process.

Reduction of Existing Development
Some public comments indicated the need to reduce existing facilities, including commercial recreation opportunities. This was considered not to be viable as it fails to comply with Public Chapter 816. In addition, this may require revoking existing property rights. Any attempt to acquire the necessary rights to

reduce existing Tims Ford development would be strongly opposed by many property owners, politically unacceptable, and economically prohibitive.

2.3 COMPARISON OF ALTERNATIVES

This section compares the environmental impacts of the five alternatives based on the information and analyses provided in Chapter 3, The Affected Environment and The Environmental Consequences.

Section 101 of NEPA declares that it is the policy of the Federal government to use all practicable means and measures, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic and other requirements of present and future generations. The agencies believe that all alternatives would be consistent with this policy, and TVA has interpreted the regulations and laws governing it to be consistent with this policy, as required by Section 102(1). Because of the environmental safeguards included in each alternative, a wide range of beneficial uses of the environment could be obtained without degradation or unintended consequences under each alternative. Alternatives B and B1, in attempting to strike a balance of conservation and development, are consistent with NEPA goals of achieving a balance between population and resource use that permits high standards of living and a wide sharing of life's amenities. Alternative A, No Action, and Alternative C, both of which could lead to increased land development, would contain environmental safeguards to protect important historic, cultural, and natural aspects of our national heritage while allowing a wide range of economically beneficial uses of the environment. Alternative D, which emphasizes land conservation, is also consistent with the NEPA goal to preserve important historic, cultural and natural aspects of our national heritage.

In implementing Alternative A, site suitability and regulatory requirements would be given due consideration in land management and disposition decisions (i.e., parcels not suitable for or capable of development would be placed in the Natural Resource Conservation zone, thereby protecting the sensitive resource on such land). This culling is expected to result in approximately 1,958 acres becoming unavailable for future development after accounting for the 407 acres that are already developed or committed to private development. The balance of lands, 2,821 acres, could be considered for future development on a case-by-case basis. The actual disposition and use for these lands would be decided on a case-by-case basis making the assessment of impacts speculative. Therefore, for the purposes of impact assessment, these 2,821 acres of land were allocated to industrial/commercial (up to 61 acres), recreation (up to 297 acres), and residential (up to 2,585 acres). In general, the potential environmental impacts of adopting Alternative A would likely fall between those of Alternative C and D. Because of the uncertainty in case-by-case dispositions, the net public benefit of these lands would not be maximized nor would a clear path for land management or disposition for either agency be established under Alternative A.

Alternatives B and B1 balance the following considerations:
1. Competing land-use interests
2. The original intent for development of the Tims Ford Project
3. Current policies of both agencies
4. The desires of the public and other agencies expressed during public scoping
5. Public Chapter 816 of the 1996 Tennessee General Assembly

The three major competing land-use interests identified for this project are residential development, recreation, and natural resource conservation. In addition to balancing these three interests, Alternative B also provides for protection of sensitive resources, such as wetlands, threatened and endangered species, and archaeological resources. Alternative B1 further protects these resources, while responding to public comments seeking more natural areas and more flexibility in water access for certain narrow shoreline strips.

Alternative C, Maximum Land Development, would involve the disposition of all uncommitted parcels that are suitable for and capable of development (residential, commercial/industrial, and developed

recreational). Among the three competing land-use interests, Alternative C would place primary emphasis on residential development, followed by recreational development and natural resources conservation, respectively.

Alternative D, Maximum Land Conservation, allows for no new residential, recreation, or industrial/commercial development. In this alternative, the primary emphasis in land allocation was placed on natural resources conservation, followed by existing recreation and existing residential development requiring land rights for water-use facilities.

Table 2.3-1 Comparison of Alternatives - Acreage

Zone	Acres					
	Existing	**A No Action**	**B Balanced Land Development**	**B1 Balanced Land Development with Conservation Partnership**	**C Maximum Land Development**	**D Maximum Land Conservation**
1 - Non TVA Shoreland	0	0	0	0	0	0
2 - Project Operations	386[a]	386[a]	386[a]	386[a]	386[a]	386[a]
3 - Sensitive Resource Management	-	881	881	881	881	881
4 - Natural Resource Conservation	-	1,958	3,605	3,692	1,958	4,779
5 - Industrial/ Commercial	6	6 to 67	67	67	67	6
6 - Recreation	2,141[b] 25.6[c]	279 to 576	576	573[g]	576	279
7 - Residential	122[d] 1,493[e]	122 to 2,585	938	821	2,585	122
8 - Conservation Partnership	-	0	0	33	0	0
Undeveloped	4,779	-	-	-	-	-
Developable	-	2,821[f]	-	-	-	-
Total	-	6,453	6,453	6,453	6,453	6,453

a - Dam Reservation
b - Includes State Park, Devil's Step, City parks, and Public-use areas
c - Sold project land for Tims Ford Marina
d- Land between 895-foot contour and backlying property owners with water-use facilities
e - Sold project lands for TERDA-developed subdivisions
f - Areas could be considered for development on a case by case basis
g - The amount of acreage for Zone 6 - Recreation was reduced due to a correction for Parcel 80.

Table 2.3-2 Comparison of Alternatives - Shoreline Miles

	Shoreline Miles					
Zone	**Existing**	**A No Action**	**B Balanced Land Development**	**B1 Balanced Land Development with Conservation Partnership**	**C Maximum Land Development**	**D Maximum Land Conservation**
1 - Non TVA Shoreland	0	0	0	0	0	0
2 - Project Operations	1.6[a]	1.6	1.6	1.6	1.6	1.6
3 - Sensitive Resource Management	-	31.0	31.0	31.0	31.0	31.0
4 - Natural Resource Conservation	-	82.6	117.3	110.4	82.6	137.7
5 - Industrial/ Commercial	0.6	0.6 to 1.8	1.8	1.8	1.8	0.6
6 - Recreation	42[b]	7.7 to 13.8	13.8	13.7[e]	13.8	7.7
7 - Residential	52.4[c]	17.1 to 64.9	30.2	28.2	64.9	17.1
8 - Conservation Partnership	0	0	0	9.0	0	0
Undeveloped	178.4	-	-	-	-	-
Developable	-	55.1[d]	-	-	-	-
Total	-	195.7	195.7	195.7	195.7	195.7

a - Dam Reservation
b - Includes State Park, Devil's Step, City parks, and Public-use areas and shoreline fronting Tims Ford Marina
c - Includes all land fronting existing subdivisions (TERDA-developed subdivisions and backlying property owners with water-use facilities)
d - Areas could be considered for development on a case-by -case basis
e - The amount of miles for Zone 6, Recreation was reduced due to a correction for Parcel 80.

2.3.1 IMPACTS SUMMARY

The range of impacts that could result from implementation of the alternatives is bracketed by the impacts of Alternatives C and D. Alternative C, with an emphasis on residential development, would cause the greatest impact. At the other extreme, Alternative D, with an emphasis on conservation, would have the least impact. Alternative B, in balancing the competing interests of development and conservation, would cause greater impacts than Alternative D, but through its dedication of 3,605 acres to Natural Resource Conservation would cause fewer impacts than Alternative C. Alternative B1 would allow more community docks than Alternative B, but would also result in a gain of shoreline management zones where there are narrow shoreline strips and an increase in natural areas compared to Alternative B. However, adoption of Alternative B1 could facilitate the conversion of some farm and forest lands to residential uses with unknown environmental impacts. Certain mitigative measures are identified and discussed in Section 3.19. The impact of Alternative A, the no-action alternative, would depend on future actions taken by TDEC and TVA in allocating or disposing the land on a case-by-case basis. An overriding concern for conservation in making case-by-case decisions would make the impact of Alternative A similar to Alternative D. Conversely, an emphasis on development would cause the impact of Alternative A to more closely resemble the impacts of Alternative C. A qualitative rating of the impacts for the alternatives on the different resources is provided in Table 2.3-3.

Table 2.3-3 Summary of Impacts

Resource	Potential Impacts	Alternatives				
		A No Action	B Balanced Land Development with Conservation	B1 Balanced Development with Conservation Partnership	C Maximum Land Development	D Maximum Land Conservation
Groundwater	• Potential contamination from failure of septic tank systems. Potential releases to groundwater from construction activities.	Depending on the outcome of case-by-case reviews conducted by TVA and TDEC, impacts could be as high as Alternative C or as minimal as Alternative D.	Affords protection to groundwater resources as a result of the allocation of a sizable acreage to the natural resource conservation zone.	Affords protection to groundwater resources as a result of the allocation of a sizable acreage to the natural resource conservation zone.	Greatest potential for impact to groundwater resources due to extensive residential development.	Minimal groundwater impact since present hydrogeological conditions would be relatively unchanged.
Site Soils	Potential for loss of prime farmland; however, the impacts are insignificant for all alternatives.	Potential Loss as high as Alternative C.	Potential loss –240 acres (62 percent in current agricultural use).	Potential loss –226 acres (64 percent in current agricultural use).	Potential loss—392 acres (54 percent in current agricultural use).	Potential loss—23 acres (20 percent in current agricultural use).
Surface Water	• Erosion during construction. • Improper operation or failure of wastewater treatment systems. Nutrient-loading to the reservoir from run-off of fertilizers and chemicals.	Absence of planning and the resulting case-by-case decision-making could result in surface water quality impacts as high as the impacts for Alternative C.	The limited extent of development and the protection provided by allocating parcels to the Natural Resource Conservation Zone would lessen impacts to surface water quality.	The limited extent of development and the protection provided by allocating parcels to the Natural Resource Conservation Zone would lessen impacts to surface water quality. Additional buffers in Zone 8 could provide localized benefits.	Extensive residential development on lands surrounding the reservoir would result in the highest potential for impacts due to erosion, chemical and nutrient run-off, and wastewater discharges from failed septic systems.	Least impact to reservoir water quality since no new development would be allowed.

Resource	Potential Impacts	Alternatives				
		A No Action	**B Balanced Land Development with Conservation**	**B1 Balanced Development with Conservation Partnership**	**C Maximum Land Development**	**D Maximum Land Conservation**
Aquatic Biology	Shoreline development could result in the adverse modification of adjacent aquatic habitat.	• 31 miles of shoreline reserved for Sensitive Resource Management. • 82.6 miles of shoreline reserved for Natural Resources Conservation. • Impact could be as high as that of Alternative C.	• 31 miles of shoreline reserved for Sensitive Resource Management. • 117.3 miles of shoreline reserved for Natural Resources Conservation. • Impacts would be less than Alternative A or C, greater than D, and comparable to B1.	• 31 miles of shoreline reserved for Sensitive Resource Management. • 110.4 miles of shoreline reserved for Natural Resources Conservation. 9 miles of shoreline for Conservation Partnerships. Could encourage additional development due to the opening of additional community water-use facilities. Impacts would be less than Alternative A or C, greater than D, and comparable to B.	• 31 miles of shoreline reserved for Sensitive Resource Management. • 82.6 miles of shoreline reserved for Natural Resources Conservation. • Greatest impact due to the length of shoreline that would be lost to development and the intensity of residential activity.	• 31 miles of shoreline reserved for Sensitive Resource Management. • 137.7 miles of shoreline reserved for Natural Resources Conservation. • Least impact due to restriction on new development and the length of shoreline preserved.
Terrestrial Ecology	Clearing and alteration of vegetation would impact the composition and abundance of plant and animal species.	Terrestrial resources on 2,839 acres under natural resources conservation and sensitive resource management would be protected. However, terrestrial resources on approximately 2,821 acres could be affected by case-by-case approvals for development.	4,486 acres protected and limited extent of residential development would cause lesser impacts on terrestrial resources than Alternative A.	4,573 acres protected with additional shoreline acreage protected (33 acres + conservation partnership easement area). Impacts on project lands are similar to Alternative B; however, the creation of Zone 8 would impact terrestrial ecology and likely encourage residential development on some adjoining private lands. Could result in locally significant impacts similar to Alternative C due to loss of habitat but regional impacts would be insignificant.	2,839 acres protected and extent of development comparable to Alternative A. This alternative would have the greatest impact to terrestrial resources.	Protection of large amount of acreage (5,660) protected and restriction on new development would result in the least impact of all alternatives.

Resource	Potential Impacts	Alternatives				
		A No Action	B Balanced Land Development with Conservation	B1 Balanced Development with Conservation Partnership	C Maximum Land Development	D Maximum Land Conservation
Threatened and Endangered Species	Adverse effects on Federal-and State-listed species (animals and plants) and their habitat, primarily through habitat alteration associated with development.	The absence of long-term planning could result in a fragmented habitat that would not benefit listed species. Further, four parcels containing sensitive habitat would be subject to future development depending on the outcome of case-by-case reviews.	Protective of listed species since all parcels containing such species and their habitat were placed in the Sensitive Resources Management zone. Many other parcels with unique or unusual habitats were assigned to the Natural Resource Conservation zone. Recreational development of parcel 76 could harm important and unusual habitats.	Impacts are similar to those described for alternative B. Those areas where Threatened and Endangered species were documented are set aside as sensitive resource management zones under all alternatives. If large scale conversion of forested private lands adjacent to Zone 8 occurs, potential secondary impacts to unidentified Threatened and Endangered species may result on those lands. During each applications for community facilities, site specific reviews could avoid potential impacts to Threatened and Endangered Species.	This alternative has the greatest impact on listed species. Several parcels containing unusual habitats, or important shoreline forest habitat would be allocated for development. Greater development would lead to a more fragmented habitat.	This alternative would provide the greatest benefit to listed species and their habitats and aid their regional recovery.
Wetlands	Adverse effects to or destruction of wetlands.	Lack of long-term planning would affect wetlands conservation. This alternative places category I wetlands in protective zones but omits several category 2 wetlands. Important wetlands in Parcels 10, 29, 30, and 35 could be affected by development.	Increases preservation of wetlands by placing a majority of wetlands in the protective zones. Further, mitigation commitments would apply to parcels containing wetlands that are in zones 5, 6, and 7 when actions trigger Section 404 jurisdiction.	Overall similar to alternative B. However, a few of the conservation areas of the Zone 8 parcels are adjacent to documented wetlands. If a community water-use facility is considered for Parcel 8-2, degradation of the wetland may occur due to cumulative impacts of pollution and disturbance. Similarly, Parcels 71-1, 71-2, 71-3, 71-4 surround a relatively large wetland.	This alternative would have the greatest impact on wetlands of the project area. A total of 10 wetlands located in Parcels 10, 29, 30, 35 and 19 could be affected by development.	This alternative would provide the greatest benefit to wetlands.

Resource	Potential Impacts	Alternatives				
		A No Action	**B Balanced Land Development with Conservation**	**B1 Balanced Development with Conservation Partnership**	**C Maximum Land Development**	**D Maximum Land Conservation**
Land Use	• Change in land use Increase in availability of water access lots. There are approx. 1,330 water access lots in Franklin County and approx. 250 in Moore County.	881 acres allocated for Sensitive Resource Protection. Up to 2,821 acres of undeveloped land could be considered for development. 1,673 new water front lots could be built.	881 acres allocated for Sensitive Resource Protection. 1,174 acres of undeveloped land could be considered for development. 459 new water front lots could be built.	881 acres allocated for Sensitive Resource Protection. 1,494 acres of undeveloped land could be considered for development. 552 new water view lots could be built. Development of Zone 8 would increase impacts over those of Alternative B by opening additional shoreline to development of boat ramps and community water-use facilities. Additional water-use facilities in Zone 8 may facilitate further development on adjoining private lands.	881 acres allocated for Sensitive Resource Protection. 2,821 acres of undeveloped land could be considered for development. 1,673 new water front lots could be built.	881 acres allocated for Sensitive Resource Protection. No new development of water front lots.
Cultural Resources	Potential for activities to affect historic sites and structures.	TVA's obligation to Section 106 compliance of the National Historical Preservation Act (NHPA) will ensure preservation of historic properties eligible or potentially eligible for inclusion in the National Register of Historic Places (NRHP) located on these parcels. Cultural Resource surveys will be conducted on a case-by-case basis.	TVA's obligation to Section 106 compliance of the National Historical Preservation Act (NHPA) will ensure preservation of historic properties eligible or potentially eligible for inclusion in the NRHP located on these parcels. Future disposal or ground disturbance proposed at any parcels not examined during this survey will require an archaeological survey prior to any land transfer or ground disturbance.			No new development or ground disturbance is proposed, cultural resources on all parcels (surveyed or unsurveyed) would not be affected. A management and protection plan for these resources will be prepared by TVA pursuant to the requirements of NHPA and ARPA.

Resource	Potential Impacts	Alternatives				
		A No Action	**B Balanced Land Development with Conservation**	**B1 Balanced Development with Conservation Partnership**	**C Maximum Land Development**	**D Maximum Land Conservation**
Recreation	Availability of recreational facilities	• Up to 297 acres available for new recreation. • Lack of planning could result in haphazard development of recreational opportunities.	• 297 acres available for new recreation. • Parcels 11, 32, 76, 79, and 80 would provide substantial recreational opportunities in future.	• 297 acres available for new recreation. • Parcels 11, 32, 76, 79, and 80 would provide substantial recreational opportunities in future. • Increased number of personal watercraft. Statistics show that it could be 33% more than present conditions. It would also decrease the surface acreage per watercraft to 5.6.	Although 297 acres are available for new recreation, the concentration of residential development would reduce Tims Ford Lake's value as a tourism resource.	The amount of acreage available for recreation purposes is approximately half of that available for recreation under Alternatives B and C. However, there are other tracts (3, 12, 19, 23, and 32) that are currently zoned for Natural Resource Conservation that could be used for passive recreational use.
Visual	Visual/Aesthetic/ Scenic Quality	Unplanned development under this alternative may compromise the scenic quality of the Tims Ford Reservoir.	Because of increased residential and recreational development, the visual character of the reservoir would experience additional impacts. The potential exists to lose 20.4 miles of undeveloped shoreline.	Because of increased residential and recreational development, the visual character of the reservoir would experience additional impacts since the presence of lake users and associated infrastructure would be more noticeable.	55.1 miles of natural shoreline could potentially be changed by development. The general visual character of the reservoir would be impacted since the presence of lake users and associated infrastructure would be visually dominant.	Since large tracts of land would be protected under this alternative, this alternative will best preserve the scenic resource of the reservoir.

Resource	Potential Impacts	Alternatives				
		A No Action	B Balanced Land Development with Conservation	B1 Balanced Development with Conservation Partnership	C Maximum Land Development	D Maximum Land Conservation
Air Quality	• Fugitive dust from construction. • Emissions from industrial facilities.	Residential and commercial development will have a slight impact on air quality. The Industrial/Commercial development proposed would not be major emission sources. Also, new and expending industrial sources are regulated under State permitting requirements. Impact on air quality will be below thresholds prescribed in the State ambient air quality and emission standards.				No new residential or commercial development.
Floodplains	No impact on the 100-year floodplain.	None of the tracts in the project area are located in the 100-year floodplain. Any material placed between elevations 873 feet msl and 895 feet msl would be subject to the requirements of the TVA Flood Control Storage Loss Guideline. All development subject to flood damage will be located above the 500-year floodplain elevation.				No new development.
Navigation	Potential for impacting navigational aids.	Construction of water-use facilities has the potential to impact navigational aids. Requests for such facilities within 50 feet of navigational aids would be reviewed by TVA in the Section 26a permitting process to ensure that the structures do not reduce the visibility of the signs.				No impact on navigation.
Auto Traffic	Increase in traffic volume	Increases in traffic would be relatively small in the near term. However, as developments are evaluated on a case-by-case basis, the impacts could become as noticeable as the impacts of Alternatives B or C.	Although increases in traffic volume and flow would be noticeable, these changes would not be as pronounced as the changes for Alternative C.	Although increases in traffic volume and flow would be noticeable, these changes would not be as pronounced as the changes for Alternative C. Small increases in traffic could occur as compared to Alternative B due to the possibility of community facilities, but the traffic would be totally self-contained within the project area.	Greatest overall growth in traffic due to maximum development approach of this alternative. Increases on multilane State highways would be less noticeable than the increase on local roads, feeders, and connector routes. Some of the secondary roads will experience a large increase in volume with traffic flow subject to considerable variation and reduced freedom to maneuver.	Relatively small increase in traffic due to no additional development.

Resource	Potential Impacts	A No Action	B Balanced Land Development with Conservation	B1 Balanced Development with Conservation Partnership	C Maximum Land Development	D Maximum Land Conservation
Socioeconomics	Impact on local economy.	This alternative could have a substantial impact on the local economy as parcels are approved for development on a case-by-case basis. Indirect impacts from increased economic activity due to recreational development.	This alternative could result in an increase in population in waterview lots of about 1,200 persons. Developments that are well-designed and marketed nationally would attract residents from other areas with substantial impacts to the local economy. Indirect impacts from increased economic activity due to recreational development.	This alternative could result in an increase in population in waterview lots of slightly less than the 1,200 persons likely under Alternative B. Developments that are well-designed and marketed nationally would attract residents from other areas with substantial impacts to the local economy. Indirect impacts from increased economic activity due to recreational development.	This alternative would have the greatest impact on the local economy. An increase in population of about 3,200 persons is expected from the development of waterview lots. Developments that are well designed and marketed nationally would attract residents from other areas. Indirect impacts from increased economic activity due to recreational development.	Indirect impacts from increased economic activity due to recreational development.

2.4 THE PREFERRED ALTERNATIVE

Alternative B1, which strikes a balance between development and conservation, is the agencies' preferred Alternative in the Final EIS. It provides for a new zone involving partnerships for conservation that would result in the creation of wider shoreline buffers and more protection for water quality and riparian habitats. It also makes an allocation change that would result in additional lands at the lower area of the lake being dedicated to natural resource conservation.

Being mindful of the potential for development to impact sensitive resources, Alternative B1 sets aside parcels containing sensitive resources and habitats in the Sensitive Resource Protection and Natural Resource Conservation categories, thereby placing these lands beyond the reach of future developmental activity. Even for lands that were considered suitable for and capable of development, Alternative B1 adopts commitments that would further minimize the potential for adverse impacts to the environment. Moreover, the allocation of certain lands for development is consistent with sections 6 and 9 of Public Chapter 816. These sections urge TDEC to maintain lands that are not deemed suitable for development as natural habitats and to dispose of the remaining properties as expeditiously as practicable and lawful.

The allocations for Alternative B1, shown in Table 2.2-3, were used to prepare the proposed Final Tims Ford Land Management and Disposition Plan. The final Plan contains an explanation of the planning process, an overview of the reservoir's history and development, a description of each parcel, and maps of the land plan (Exhibit 1). The Land-Use Allocation Map can be found in the back of this document and shows the location of each parcel (see Appendix G for individual parcel zones). SMI categorization of the existing and proposed residential shoreline is listed in Table 2.4-1.

Table 2.4-1 Residential Shoreline Categorization for the Preferred Alternative

Category	Miles	Percent of total Tims Ford Shoreline.
Shoreline Protection	0	0
Residential Mitigation	33.0	12.0
Managed Residential	32.8	11.9